

1998/G-021
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3. The process for preparing a homopolymer and/or copolymer having an irregular particle structure as claimed in claim 1, wherein the melt flow index (MFR) is from 1.4 g/10 min to 5 g/10 min, 190/15) the molecular weight distribution M_w/M_n the bulk density is from 0.13 g/cc to 0.3 g/cc and the particle size is from 60 μm to 180 μm .
4. The process for preparing a homopolymer and/or copolymer having an irregular particle structure as claimed in claim 1, wherein the melt flow index (MFR) is from 1.4 g/10 min to 3 g/10 min, 190/15) the molecular weight distribution M_w/M_n the bulk density is from 0.15 g/cc to 0.28 g/cc and the particle size is from 60 μm to 160 μm .
5. The process for preparing a homopolymer and/or copolymer having an irregular particle structure as claimed in claim 1, wherein the polymerization is carried out at a temperature of from 30°C to 130°C and a pressure of from 0.05 MPa to 4 MPa.
6. The process for preparing a homopolymer and/or copolymer having an irregular particle structure as claimed in claim 1, wherein the polymerization is carried out at a temperature of from 50°C to 90°C.

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9. The process for preparing a catalyst for preparing a homopolymer and/or copolymer having an irregular particle structure as claimed in claim 7, wherein the reaction of the Ti(IV) compound with the organic aluminum compound is carried out in a saturated hydrocarbon or a mixture of saturated hydrocarbons at a temperature of from -40°C to 100°C.
10. The process for preparing a catalyst for preparing a homopolymer and/or copolymer having an irregular particle structure as claimed in claim 7, wherein the concentrations of the reactants in the starting solutions are from 0.1 mol to 9.1 mol of Ti(IV) compound/l of solvent and 0.01 mol to 1 mol of Al compound/l.
11. The process for preparing a catalyst for preparing a homopolymer and/or copolymer having an irregular particle structure as claimed in claim 7, wherein the reaction of the components is carried out by adding the Ti(IV) component to the Al component over a period of from 0.1 minute to 60 minutes.